- Sofuoglu MT: A sample for mass-gathering planning: Universiade 2005 Summer Olympic Games, in Turkey. (Turkey).
- Alshinkity IS: Jamarat Ritual: Emerging critical cornerstone of Hajj. (Saudi Arabia).
- Potin M: Validation of Maurer's Formula to type and size the rescue resources and healthcare needs in case of mass gatherings: The case of three consecutive major air shows in western Switzerland. (Switzerland).
- Coumans GGH: Three hundred heat casualties during a walking trip. (Netherlands).
- Mosiello G: Prehospital management of mass-gathering events in Rome— A review from John Paul II Pope funeral to celebration of the Word Football Cup 2006. (Italy).
- 9. Salazar V. De: Subway accident in Rome October 2006. (Italy).
- 10. Peleg KP: Managing mass-casualty events: Protocols or principles? (Israel). Prebospital Disast Med 2008;23(4):s89–s90

## **Pediatrics**

Chairs: Professor Leonid Roshal; Professor Art Cooper Correspondence: leonid-roshal@lamport.ru

At the 15WCDEM in Amsterdam, including the WADEM pre-Congress retreat, the topic "Children in Disasters" was given special attention. As a result of these deliberations and discussions, two important documents (discussed below) have been elaborated.

During the Congress, there were two pediatric sections at which there were 15 oral presentations and five posters made by top disaster medicine specialists from different countries of the world (US, Russia, Belgium, Iraq, Denmark, Netherlands, Israel, Georgia, Iran, the Czech Republic and others). Some discussed preparedness and organization of medical aid to children at disaster sites during disasters, wars, and terrorist acts. Additional topics discussed included the presentation of J. Hom's paper, Hospital-based Pediatric Disaster Triage Algorithm, that is a collaborative effort from New York City's Pediatric Disaster Advisory Group, transportation of critically ill neonates, and reviews on the problems in their respective countries like Iraqi children and trauma, the development of a pediatric trauma register in Flanders (Belgium), authors' experience-based medical materials like Neurotrauma structure, its diagnostic peculiarities, medical aid to children in various earthquakes, and surgical treatment of soft tissues and bones complicated with surgical infection in children in case of mass casualties.

After analyzing the abstracts as well as oral and poster presentations on pediatric disaster care, the WADEM Pediatric Committee and Board of Directors developed two important documents; "Report of the Pediatric Committee to the Board of Directors" and "Recommended Core Competencies for Pediatric Disaster Care". These documents describe the situation with pediatric disaster care and state that in disasters, children suffer and die disproportionately more than adults, their physiological needs are much greater than adults, and their outcomes are decidedly worse that adults. The two reasons responsible for this include:

- No appropriate harmonious, world-wide system of coordination for pediatric disaster care; and
- 2. A lack of widespread "local" pediatric specialty and sub-specialty care in rural (and even urban) areas.

As a result of these extant deficiencies, children suffer significant mortality and morbidity/ disability in disasters.

It is the strong feeling that quick access to pediatricians and sub-specialty pediatric care (pediatric trauma surgeons and others) is the best way to mitigate adverse pediatric outcomes in disasters. This cannot be tolerated by the 21st Century society, and the authors of these documents believe that it is incumbent upon WADEM to take the lead in ameliorating this lamentable situation. The Congress delineated five recommendations to be considered as priorities for pediatric disaster care:

## Recommendations

- The WADEM recommends to the World Health Organization (WHO) that it create a full-time position specifically tasked with improving the medical care and well-being of children in disasters and humanitarian crises including war zones;
- 2. The WADEM encourages and coordinate an international commitment to improved education of healthcare professionals for medical care of children in disasters. They recommend that this be a two-pronged approach: (1) prehospital (field and austere) care of children in disasters; and (2) in-hospital and critical care of sick children in disasters. The prehospital education would be geared toward non-pediatric specialty healthcare professionals. The guiding principle would be "to recognize, stabilize, and appropriately transport a "sick child". The in-hospital /critical care education would be aimed at pediatricians and pediatric sub-specialists who either will work locally or as a part of regional, national, or international pediatric disaster response teams;
- 3. The WADEM should foster the development of a pediatric disaster database and partner with a university or NGO to house and maintain the worldwide resource. There is a significant amount of data published in disparate journals on pediatric disaster care, and this research must be collated and rendered into a common format that would allow meta-analysis of the data;
- 4. The WADEM should develop evidence-based clinical protocols for the treatment of children in disasters and for these to be published in *Prehospital and Disaster Medicine*; and
- 5. The WADEM (in partnership with WHO) foster the development of national and international pediatric disaster response teams that would be available to respond when needed.

To fulfill these recommendations, core knowledge competencies and core performance capabilities must be developed and evaluated to develop appropriate pediatric disaster medicine benchmarks.

## Recommended Core Competencies for Pediatric Disaster Care

- Incident Command System (ICS)—participates as a member of the disaster team under ICS structure;
- 2. Preparation and Mitigation—participates in planning and mitigation for disasters;

- 3. *Triage*—can perform appropriate pediatric triage in a disaster environment;
- 4. Public Health and Safety;
- 5. Psychosocial considerations—can provide appropriate psychosocial support to children and their families;
- Support/Assistance—can work with various groups and organizations (governmental, community, NGO, volunteers) to optimize support for disaster planning, response and recovery especially regarding children's health issues;
- 7. Communication and Documentation—maintains necessary communications and maintains appropriate documentation for pediatric care in disasters;
- 8. Regulatory/Legal/Ethical Principles—complies with regulatory, legal, ethical and moral principles in a culturally sensitive way; and
- Assessment and treatment—can assess, stabilize, initiate treatment and appropriately transport sick children in disaster situations

Prehospital Disast Med 2008;23(4):s90-s91

## Education and Training

Chair: Geert J. R. Seynaeve, MD, MPH Correspondence: geert.seynaeve@vub.ac.be

Education and training has become an important, although sometimes problematic and controversial theme in the field of "Disaster Medicine".

The programs for Education and Training included presentations from the US (9) and Western Europe (9), with others from: Italy (3); Turkey; the Netherlands (2); Japan (2); Australia (2); Sweden (1); Belgium (1); Norway (1); UK/Neth (1); and Israel (1). Four of the presentations were by truly international team, including one from the WADEM's Education Committee.

A wide spectrum of approaches and methods were presented, targeting various health professionals, dealing with a huge number of issues, skills, and competencies related to different emergency scenarios and topics. Most presentations went beyond the traditional focus on medical doctors or clinical aspects such as trauma care or triage. In Table 1 the number of presentations is listed according to the health profession/audience that was mainly targeted by the presented educational programs or experience (except for the two reports from the Education Committee of WADEM, there were 29 presentations on the program of the 15WCDEM. The total number in the tables can exceed 31 given the fact that some presentations correspond to or include more then one item/issue.)

The scope of the courses, exercises, or education and training-related experiences that were presented was interesting. Following 11 September, many grants and programs were the result of a political agenda and the media-driven terrorism hype. Surprisingly, only a few presentations were limited to terrorist scenarios. Some were able to canalize resources towards a more generic or all-hazard approach. However, the importance of public health emergencies was not reflected in the presentations (Table 2).

Three presentations dealt, at least partly, with problems of methods, organization, pedagogy, or cultural awareness related to the training of instructors or teach-the-teachers programs.

Most health professionals are unlikely to be confronted more than once, if at all, with major emergencies. Acquisition of specific knowledge, skills, and attitudes that are required in order to adequately deal with exceptional major health threats can not be maintained by routine practice or improved via 'experience'. Is it possible and useful to integrate "core competencies" of disaster medicine in the normal curriculum of health professionals? Can generic or specific disaster-type-related competencies effectively be incorporated into the continuing professional development and continuing medical education? How can the knowledge, skills, and attitudes to enable competent practice in the eventual disaster situation be identified? How does one set priorities and find expertise and the necessary funds? What kind of teaching methods and acquisition tools can be used? The effort has just begun to try to find an answer to these challenging questions.

Most speakers made the point that essential clinical knowledge and medical skills (mostly related to emergency medicine and traumatology, or tropical medicine and nutrition) must combine attention directed to management issues, and/or organizational and logistical problems. Some called for attention toward vulnerable populations, children, elderly, cultural minorities, pregnant women, and disabled persons. But few details were provided on how to identify and increase the competencies in the field of management, as well as how to deal with the collective public health needs in mass emergencies.

In a number of education and training experiences, lectures, seminars, or demonstrations were combined with activities demanding more active participation by the students. This could include more theoretical course work, group discussions, or workshops, and also individual skill stations, team play, and practical simulation exercises. Also, a large variety of mock drills were discussed, table top or with life actors, sometimes Web-based or included experisoftware for simulation and reporting. Exceptionally, students were exposed to stress, and/or difficult natural or climatologic circumstances. The Harvard Humanitarian Studies Initiative includes a field experience of one or three months. The number of presentations using a particular education and training methodology are mentioned in Table 3.

Only two presentations mentioned using a disaster health manual or compendium, reflecting the lack of a solid, evidence-based body of knowledge in disaster health. Most education and training programs still rely on presentations of anecdotal experiences, unsystematic collections of "lessons-learned", and reading lists of articles and ad-hoc documents. This is problematic for one-day events without follow-up, but also for developing training programs and academic curricula. Some tried to innovate, one offering online presence of collaborating experts; others involved students in updating action cards or revision of emergency plans. At least three speakers mentioned making relevant resources and references available online. Worth mention-